STANDARD OPERATING PROCEDURE

COLLECTION OF DEPTH-INTEGRATED SURFACE WATER SAMPLES FOR ORGANIC CONTAMINANT ANALYSIS

1.0 SCOPE AND APPLICATION

This standard operating procedure describes collecting a small-volume (1 liter) depth-integrated surface water sample, for organic contaminant analysis. It is applicable to any surface water; streams, lakes, impoundments, wetlands, etc.

This procedure was originally developed by the U.S. EPA – Large Lakes Research Station (Grosse Ile, MI) for use on the EPA-sponsored Upper Great Lakes Connecting Channel Study (UGLCCS; U.S. EPA, 1988).

2.0 METHOD SUMMARY

A clean 1-liter amber glass sample bottle is equipped with a "filler cap" (described in Section 3), attached to a weighted harness, submerged into the water body to be sampled, and raised and lowered from near the surface to near the bottom until the bottle is full.

3.0 PROCEDURE

3.1 Materials and Supplies

- 1-liter amber glass bottles; certified pre-cleaned
- filler caps (described below)
- bottle harness and rope (described below)
- appropriate sampling vessel (boat, canoe), if sampling from on the water
- ice chests
- decontamination supplies (see the Field Equipment Decontamination SOP)
- appropriate equipment for establishing station position (e.g., global positioning system, etc.; project-specific)
- appropriate field log book (project-specific)

Filler Cap Description

The filler cap consists of a normal bottle cap, with a Teflon® liner, into which two holes have been drilled. Into these two holes should be placed two lengths of stiff Teflon® tubing, both 3/16" ID, one ¾" long and the other 1 ¼" long.

Bottle Harness Description

The bottle harness can take a variety of shapes: